

# Technical Design in Manufacturing, A.A.S.

24-25 catalog

## Full-time with summer course schedule

**Description:** This program is designed to prepare students for employment or advancement in the fields of industrial design, fabrication, and manufacturing with an emphasis on emerging technologies and strategies. Students will be well equipped to compete in today's job market, as the program combines traditional fabrication tools with new design and fabrication processes. A counselor should be consulted if the student plans to transfer to a four-year institution.

**Completion Time:** 2 Years

This is suggested course sequencing. Please see a counselor or advisor for individual adjustments.

### Year 1

#### Fall Semester

- ☐ Success Skills for the 21st Century GNST 100 3 Cr.
- ☐ Freshman English I ENGL 100 3 Cr.
- ☐ Industrial Documentation & Measurement TDSN 107 4 Cr.
- ☐ Introduction to CAD TDSN 115 4 Cr.

#### Spring Semester

- ☐ Mathematics Requirement 3-4 Cr.
- ☐ Geometric Dimensioning & Tolerancing TDSN 125 2 Cr.
- ☐ Tool & Die Design Production TDSN 135 2 Cr.
- ☐ Advanced CAD TDSN 251 4 Cr.

#### Summer Session

- ☐ Humanities Requirement 3-4 Cr.
- ☐ Choose 1
  - American Political System POLI 240 3 Cr.
  - United States History to 1865 HIST 250 3 Cr.
  - (Even year)

*(\*If student wants HIST 250, swap with communications requirement)*

### Year 2

#### Fall Semester

- ☐ Basic Machine Operation INDS 129 4 Cr.
- ☐ Manufacturing Processes INDS 260 2 Cr.
- ☐ Industrial Communications TDSN 103 2 Cr.
- ☐ Tool & Die Design Forming TDSN 136 2 Cr.
- ☐ Communication Requirement 3 Cr.

#### Spring Semester

- ☐ Physical Science PHYS 101 4 Cr.  
(if student wants PHYS 230, swap with communications requirement)
- ☐ Tool & Die Design Transfers TDSN 235 4 Cr.
- ☐ Integrated Design for Manufacturing TDSN 285 3 Cr.
- ☐ Electives in ATMN, INDS, TDNS, or WELD\* 3-4 Cr.

*\*Electives as needed to get to 60 credits.*

**Total Minimum Credits: 60**

**Academic Advising:** You should meet with an academic counselor prior to registering for classes.

**Note:** Prerequisite courses may apply to this program. A minimum of 60 unduplicated credits (100 level or higher) are required for all associate degree programs.

# Technical Design in Manufacturing, A.A.S. 24-25 catalog

## Full-time course schedule

**Description:** This program is designed to prepare students for employment or advancement in the fields of industrial design, fabrication, and manufacturing with an emphasis on emerging technologies and strategies. Students will be well equipped to compete in today's job market, as the program combines traditional fabrication tools with new design and fabrication processes. A counselor should be consulted if the student plans to transfer to a four-year institution.

**Completion Time:** 2 Years

This is suggested course sequencing. Please see a counselor or advisor for individual adjustments.

### Year 1

#### Fall Semester

- ☐ **Success Skills for the 21st Century** GNST 100 3 Cr.
- ☐ *Freshman English I* ENGL 100 3 Cr.
- ☐ **Choose 1**
  - American Political System POLI 240 3 Cr.
  - United States History to 1865 HIST 250 3 Cr.
  - (\*If student wants HIST 250, swap with communications requirement)
- ☐ **Industrial Documentation & Measurement** TDSN 107 4 Cr.
- ☐ **Introduction to CAD** TDSN 115 4 Cr.

#### Spring Semester

- ☐ *Communication Requirement* 3 Cr.
- ☐ *Mathmatics Requirement* 3-4 Cr.
- ☐ **Geometric Dimensioning & Tolerancing** TDSN 125 2 Cr.
- ☐ **Tool & Die Design Production** TDSN 135 2 Cr.
- ☐ **Advanced CAD** TDSN 251 4 Cr.

### Year 2

#### Fall Semester

- ☐ **Basic Machine Operation** INDS 129 4 Cr.
- ☐ **Manufacturing Processes** INDS 260 2 Cr.
- ☐ **Industrial Communications** TDSN 103 2 Cr.
- ☐ **Tool & Die Design Forming** TDSN 136 2 Cr.
- ☐ *Humanities Requirement* 3-4 Cr.

#### Spring Semester

- ☐ **Physical Science** PHYS 101 4 Cr.  
(if student wants PHYS 230, swap with communications requirement)
- ☐ **Tool & Die Design Transfers** TDSN 235 4 Cr.
- ☐ **Integrated Design for Manufacturing** TDSN 285 3 Cr.
- ☐ **Electives in ATMN, INDS, TDNS, or WELD\*** 3-4 Cr.

\*Electives as needed to get to 60 credits.

Courses in italics may be taken in the summer term.

**Total Minimum Credits: 60**

**Academic Advising:** You should meet with an academic counselor prior to registering for classes.

**Note:** Prerequisite courses may apply to this program. A minimum of 60 unduplicated credits (100 level or higher) are required for all associate degree programs.

# Technical Design in Manufacturing, A.A.S. 24-25 catalog

## Half-time course schedule

**Description:** This program is designed to prepare students for employment or advancement in the fields of industrial design, fabrication, and manufacturing with an emphasis on emerging technologies and strategies. Students will be well equipped to compete in today's job market, as the program combines traditional fabrication tools with new design and fabrication processes. A counselor should be consulted if the student plans to transfer to a four-year institution.

**Completion Time:** 4.5 Years

This is suggested course sequencing. Please see a counselor or advisor for individual adjustments.

### Year 1

#### Fall Semester

- ☐ Success Skills for the 21st Century GNST 100 3 Cr.
- ☐ Industrial Documentation & Measurement TDSN 107 4 Cr.

#### Spring Semester

- ☐ Freshman English I ENGL 100 3 Cr.
- ☐ Mathematics Requirement 3-4 Cr.

### Year 2

#### Fall Semester

- ☐ Introduction to CAD TDSN 115 4 Cr.
- ☐ Choose 1
  - American Political System POLI 240 3 Cr.
  - United States History to 1865 HIST 250 3 Cr.*(\*If student wants HIST 250, swap with communications requirement)*

#### Spring Semester

- ☐ Geometric Dimensioning & Tolerancing TDSN 125 2 Cr.
- ☐ Tool & Die Design Production TDSN 135 2 Cr.
- ☐ Communication Requirement 3 Cr.

### Year 3

#### Fall Semester

- ☐ Basic Machine Operation INDS 129 4 Cr.
- ☐ Tool & Die Design Forming TDSN 136 2 Cr.

#### Spring Semester

- ☐ Advanced CAD TDSN 251 4 Cr.
- ☐ Tool & Die Design Transfers TDSN 235 4 Cr.

### Year 4

#### Fall Semester

- ☐ Manufacturing Processes INDS 260 2 Cr.
- ☐ Humanities Requirement 3-4 Cr.

#### Spring Semester

- ☐ Physical Science PHYS 101 4 Cr.  
(if student wants PHYS 230, swap with communications requirement)
- ☐ Integrated Design for Manufacturing TDSN 285 3 Cr.

### Year 5

#### Fall Semester

- ☐ Industrial Communications TDSN 103 2 Cr.
- ☐ Electives in ATMN, INDS, TDNS, or WELD\* 3-4 Cr.

*\*Electives as needed to get to 60 credits.*

**Academic Advising:** You should meet with an academic counselor prior to registering for classes.

**Note:** Prerequisite courses may apply to this program. A minimum of 60 unduplicated credits (100 level or higher) are required for all associate degree programs.

Courses in italics may be taken in the summer term.

**Total Minimum Credits: 60**

# Technical Design in Manufacturing, A.A.S. 24-25 catalog

## Full-time spring start course schedule

**Description:** This program is designed to prepare students for employment or advancement in the fields of industrial design, fabrication, and manufacturing with an emphasis on emerging technologies and strategies. Students will be well equipped to compete in today's job market, as the program combines traditional fabrication tools with new design and fabrication processes. A counselor should be consulted if the student plans to transfer to a four-year institution.

**Completion Time:** 2 Years

This is suggested course sequencing. Please see a counselor or advisor for individual adjustments.

### Year 1

#### Spring Semester

- ☐ Success Skills for the 21st Century GNST 100 3 Cr.
- ☐ Freshman English I ENGL 100 3 Cr.
- ☐ Humanities Requirement 3-4 Cr.
- ☐ Choose 1
  - American Political System POLI 240 3 Cr.
  - United States History to 1865 HIST 250 3 Cr.
  - (Even year)
  - (\*If student wants HIST 250, swap with communications requirement)*

#### Fall Semester

- ☐ Mathematics Requirement 3-4 Cr.
- ☐ Industrial Documentation & Measurement TDSN 107 4 Cr.
- ☐ Introduction to CAD TDSN 115 4 Cr.

### Year 2

#### Spring Semester

- ☐ Geometric Dimensioning & Tolerancing TDSN 125 2 Cr.
- ☐ Tool & Die Design Production TDSN 135 2 Cr.
- ☐ Advanced CAD TDSN 251 4 Cr.
- ☐ Physical Science PHYS 101 4 Cr.
- (if student wants PHYS 230, swap with communications requirement)*

#### Fall Semester

- ☐ Basic Machine Operation INDS 129 4 Cr.
- ☐ Manufacturing Processes INDS 260 2 Cr.
- ☐ Industrial Communications TDSN 103 2 Cr.
- ☐ Tool & Die Design Forming TDSN 136 2 Cr.
- ☐ Communication Requirement 3 Cr.

### Year 3

#### Spring Session

- ☐ Tool & Die Design Transfers TDSN 235 4 Cr.
- ☐ Integrated Design for Manufacturing TDSN 285 3 Cr.
- ☐ Electives in ATMN, INDS, TDNS, or WELD\* 3-4 Cr.

*\*Electives as needed to get to 60 credits.*

**Total Minimum Credits: 60**

**Academic Advising:** You should meet with an academic counselor prior to registering for classes.

**Note:** Prerequisite courses may apply to this program. A minimum of 60 unduplicated credits (100 level or higher) are required for all associate degree programs.